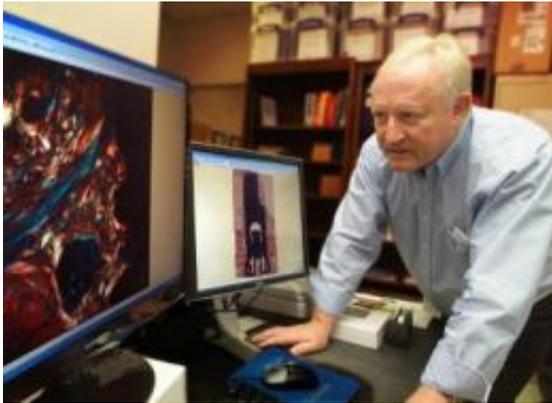


Bone-creating protein could improve dental implant success

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Using a bone-creating protein to augment the maxillary sinus could improve dental implant success, according to Dr. Ulf Wikesjo, Interim Associate Dean for Research and Enterprise in the GHSU College of Dental Medicine. Credit: Phil Jones/campus photographer/Georgia Health Sciences University

Using a bone-creating protein to augment the maxillary sinus could improve dental implant success, according to Georgia Health Sciences University researchers.

Dental implants, screws that anchor permanent prosthetic teeth, won't work if the bone in which they are anchored is too thin. Bone-thinning is a common cause and consequence following [tooth loss](#). The current favored solution is to supplement the area with bone grafts to stabilize the implant base. But that technique is problematic "primarily because it

involves additional surgeries to harvest the bone," said Dr. Ulf M.E. Wikesjö, Interim Associate Dean for Research and Enterprise in the GHSU College of Dental Medicine.

In animal studies, he and his team at the GHSU Laboratory for Applied Periodontal & Craniofacial Regeneration found that implanting bone morphogenetic [protein](#) in the sinus more new bone will form within four weeks than using conventional bone grafting at the same site.

"We found that BMP induced superior bone quality over that following [bone grafts](#), which improves the chances for successful implants," Wikesjö said. "BMP is phenomenal, because it's a true, off-the-shelf product with ease of use that can produce real results, and it could be the new gold standard for this procedure."

According to the American Association of Oral and Maxillofacial Surgeons, 69 percent of adults ages 35-44 have lost at least one tooth due to decay, disease or trauma, and 26 percent of adults have lost all permanent teeth by age 74. Before [dental implants](#) were available, the only options for replacing these missing teeth were dentures and dental bridges, both of which could lead to further bone loss. Implants provide patients with numerous benefits, including improved oral health, appearance, speech, convenience, durability and ability to eat.

Provided by Georgia Health Sciences University

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